[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1293; Directorate Identifier 2012-NE-45-AD; Amendment 39-17327; AD 2013-02-06]

RIN 2120-AA64

Airworthiness Directives; Engine Alliance Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Engine Alliance GP7270 and GP7277 turbofan engines. This AD requires initial and repetitive borescope inspections and removal from service before further flight if one or more burn holes are detected, in certain high-pressure turbine (HPT) stage 2 nozzles. This AD also requires mandatory removal from service of these HPT stage 2 nozzles at the next engine shop visit. This AD was prompted by a report received of inadequate cooling of the HPT stage 2 nozzle, leading to damage to the HPT stage 2 nozzle, burn-through of the turbine case, and engine shutdown. We are issuing this AD to prevent HPT stage 2 nozzle failure, leading to uncontrolled fire, engine shutdown, and damage to the airplane.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Martin Adler, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: martin.adler@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We received a report of an engine shutdown and turbine case burn-through, preceded by exceedance of the engine exhaust gas temperature (EGT) limit and loss of engine oil. Investigation revealed that the event was caused by damage to the HPT stage 2 nozzle due to inadequate part cooling. HPT stage 2 nozzles, part numbers (P/Ns) 2101M24G01, 2101M24G02, and 2101M24G03, are identified as having the inadequate

cooling design. This condition, if not corrected, could result in HPT stage 2 nozzle failure, leading to uncontrolled fire, engine shutdown, and damage to the airplane.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires initial and repetitive borescope inspections and removal from service before further flight if burn holes are detected, in HPT stage 2 nozzles, P/Ns 2101M24G01, 2101M24G02, and 2101M24G03. This AD also requires mandatory removal from service of these HPT stage 2 nozzles at the next engine shop visit.

FAA's Justification and Determination of the Effective Date

No domestic operators use this product. Therefore, we find that notice and opportunity for prior public comment are unnecessary, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the Docket Number FAA-2012-1293 and Directorate Identifier 2012-NE-45-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD will affect no engines installed on airplanes of U.S. registry. We also estimate that it would take about two hours per engine to perform a borescope inspection of the HPT stage 2 nozzle. The average labor rate is $85 per work hour. Required parts would cost about $487,312 per engine. Based on these figures, we estimate the cost of this proposed AD to U.S. operators to be $0.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs" describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2013-02-06 **Engine Alliance:** Amendment 39-17327; Docket No. FAA-2012-1293; Directorate Identifier 2012-NE-45-AD.

(a) Effective Date

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Engine Alliance GP7270 and GP7277 turbofan engines with a high-pressure turbine (HPT) stage 2 nozzle, part number (P/N) 2101M24G01, 2101M24G02, or 2101M24G03, installed.

(d) Unsafe Condition

This AD was prompted by a report received of inadequate cooling of the HPT stage 2 nozzle, leading to damage to the HPT stage 2 nozzle, burn-through of the turbine case, and engine shutdown. Investigation revealed that the event was caused by damage to the HPT stage 2 nozzle due to inadequate part cooling. We are issuing this AD to prevent HPT stage 2 nozzle failure, leading to uncontrolled fire, engine shutdown, and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Borescope Inspections of the HPT Stage 2 Nozzle

(1) Initially borescope inspect (360 degrees) the HPT stage 2 nozzle at the following:

(i) Before accumulating 1,500 cycles-since-new (CSN), if the nozzle has fewer than 1,450 CSN on the effective date of this AD.

(ii) Within the next 50 cycles, if the nozzle has 1,450 or more CSN on the effective date of this AD.

(2) Thereafter, repetitively borescope inspect (360 degrees) the HPT stage 2 nozzle within every 100 additional cycles-in-service.

(3) If during any inspection required by this AD, any burn holes are detected through the surface of the nozzle, remove the nozzle from service before further flight.

(g) Mandatory Removal From Service of the HPT Stage 2 Nozzles

At the next engine shop visit, remove HPT stage 2 nozzles P/N 2101M24G01, 2101M24G02, and 2101M24G03 from service.

(h) Definition

For the purpose of this AD, an "engine shop visit" is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

For more information about this AD, contact Martin Adler, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: martin.adler@faa.gov.

(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on January 15, 2013.

Thomas A. Boudreau,
Acting Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2013-01552 Filed 01/25/2013 at 8:45 am; Publication Date: 01/28/2013]